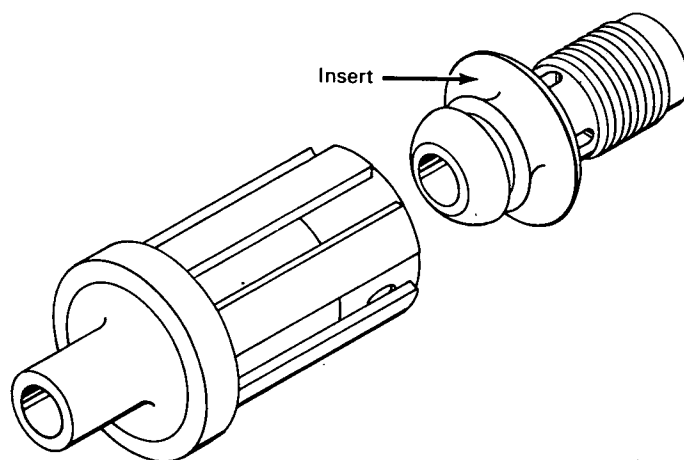
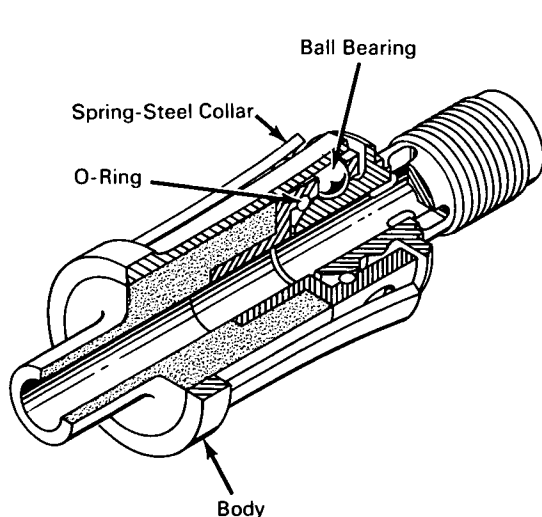


NASA TECH BRIEF



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Line Adapter Provides Quick Disconnect Under Moderate Side Loading



The problem:

To provide a quick and simple line disconnect system, separable by a predetermined side loading under given pressure.

The solution:

A line adapter that quickly separates upon the application of a side load of 15 lbs with standing line pressure at 100 psig.

How it's done:

The unit consists of a cylindrical female adapter and a ball-shaped male insert. The adapter is placed inside of a spring steel collar that is machined to form equally spaced torques, retaining a number of staked ball bearings. These spring-loaded balls act to lock into a groove, machined in the male insert, as connection is made.

For sealing purposes, an O-ring is retained inside the adapter.

Note:

Inquiries concerning this innovation may be directed to:

Technology Utilization Officer
Marshall Space Flight Center
Huntsville, Alabama 35812
Reference: B67-10256

Patent status:

No patent action is contemplated by NASA.

Source: E. A. Wolfram
of North American Aviation, Inc.
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Marshall Space Flight Center
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